

## A NEW VARIETY OF ENGELMANN SPRUCE

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*PICEA ENGELMANNI* Parry ex Engelm. var. *glabra* var. nov. *Ramulis glabris*.

Type. Near Nash's Fork, Medicine Bow Mountains, altitude 10,000 feet, Albany County, Wyoming, July 10, 1948, *Goodman 4904* (Bebb Herbarium, Univ. Oklahoma).

The location given is in the climax Engelmann spruce-alpine fir forest near the University of Wyoming Science Camp. Other specimens in the Bebb Herbarium collected in this locality are as follows: near the Camp, June 20, 1931, *Howard King*, June 27, 1935, *C. T. Eskew*; Mill Pond (about 2 miles west of the Camp) July 22, 1949, *Goodman 5114*.

This glabrous phase was first observed at the type locality, which is at a point along the very eastern limit of the range of *Picea Engelmanni*—the mountains soon dropping off to the eastward to the Great Plains. Near the Camp several score of trees were observed and it was noted that, regardless of habitat or size and age of tree, about one out of three trees had glabrous twigs.

Judging from the few observations made thus far, this high concentration of glabrous individuals is decidedly localized. On the Hayden Division of the Medicine Bow National Forest, about forty-five miles southwest across the Continental Divide, and in a range separated from the Medicine Bows by the sagebrush covered valley of the North Platte River, three brief samplings were made. At the first locality, there were twenty pubescent trees and two glabrous ones. At the second, fifteen pubescent and no glabrous ones, and at the third, twenty-seven pubescent and one glabrous—a sharp difference from the count of two pubescent to one glabrous on Nash's Fork.

The uniformity of the literature in referring to the pubescent twigs of Engelmann spruce attests to the wide prevalence of the character. Occasional reference may be found, however, to variations in, or lack of pubescence. Kearney and Peebles (1942, p. 64) state in their key, ". . . comonly pubescent or puberulent," and the description of Engelmann spruce in Jepson (1925, p. 51) reads, ". . . branchlets (in ours) glabrous." Whether the Shasta County, California, specimens are of the same variety as those from eastern Wyoming is unknown.

The trees with pubescent twigs are herewith designated as follows:

*PICEA ENGELMANNI* Parry ex Engelm. var. *typica* nom. nov. *P. Engelmanni* Parry ex Engelm. *Trans. Acad. Sci. St. Louis* 2: 212. 1863.

The few cones measured are on the average shorter in the glabrous variety, but no other differences have been detected be-

tween the two varieties. The distribution of the resin ducts in the needles is primarily in the proximal half, as recorded by Marco (1931) and Freytag and Reed (1948) for Engelmann spruce.

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#### LITERATURE CITED

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#### FRED WILLIAM FOXWORTHY

Fred William Foxworthy was born in Goodland, Indiana, July 3, 1877, the son of a Methodist clergyman. Largely by his own efforts, he was able to attend DePauw University, where he was graduated in 1899. After a season at Woods Hole, he entered Cornell University where he received his master's degree in entomology in 1902, and his doctorate in botany in 1904.

He was in the Philippine service from 1905 through 1916, the last three years as head of the School of Forestry and Chief of the Division of Forest Investigation in the Bureau of Forestry, and Professor of Dendrology in the University of the Philippines. In a group of men of distinction, he was particularly distinguished by devotion to the search for the truth (research), and as a teacher of students.

In 1917, he went to the Federated Malay States as Forest Research Officer, being the only non-British subject in the British Colonial Service. He remained there until retired for age in 1932.

He was always particularly interested in timbers, in their sources, characteristics and uses, and published many important works on these subjects. A book on the timber resources of the Orient, finished two years ago, is understood to be in press.

He was a zealous traveler. His journeys, which took him from Scotland to New Zealand, and which included Africa from the Cape to Cairo, enabled him to see in person what the World could contribute to his understanding. After his retirement, he visited Latin America.

In 1934, he married Laura Mae Williamson and settled in Berkeley where the status of a Research Associate in the Department of Botany gave him the facilities of the University of California. He was President of the California Botanical Society in 1942. His death came suddenly in Berkeley on February 4, 1950.